

Appl. No. : 10/630,635
Filed : July 29, 2003

REMARKS

Claims 2–42 are pending in this application. In the March 15, 2005 Office Action, the Examiner rejects Claims 2–42. In particular, the Examiner rejects Claims 2–42 under the non-statutory double patenting doctrine as being unpatentable over Claims 1–41 of U.S. Patent No. 6,073,190. The Examiner rejects Claims 2 and 3 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,426,740 to Bennett (“Bennett”). The Examiner also rejects Claims 2, 3, 10, 17 and 37 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,455,915 to Coke (“Coke”). In addition, the Examiner rejects Claims 2–21, 31 and 33–42 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,978,878 to Lange (“Lange”).

By this present Response, Applicant has amended Claims 2, 10, 17, 31 and 37. Claims 3–9, 11–16, 18–30, 32–36 and 38–42 remain as previously presented. In view of the foregoing amendments and the remarks set forth below, Applicant submits that Claims 2–42 are patentably distinguished over the cited prior art.

ALLOWABLE SUBJECT MATTER — TERMINAL DISCLAIMER

The Examiner rejects Claims 2–42 under the so-called non-statutory double patenting doctrine. Because Claims 22–30 and 32 were not rejected in view of the prior art (i.e., Bennett, Coke and Lange), Applicant submits that Claims 22–30 and 32 would be allowable with the filing of a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c).

In view of the foregoing amendments and the remarks set forth below, Applicant submits that 2–21, 31 and 33–42 are also patentably distinguished over the cited prior art, and Applicant reserves the right to file a Terminal Disclaimer with respect to any of Claims 2–42 in response to a subsequent Office Action issued by the Examiner.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

Independent Claim 2

The Examiner rejects Claim 2 as being anticipated by each of Bennett, Coke and Lange. For the reasons set forth below, Applicant respectfully disagrees.

Focusing on amended independent Claim 2, in one embodiment of Applicant’s invention a method is disclosed for providing data transfers between a processor and a

component, which operate at different speeds. The method comprises buffering an address with a first buffer in communication with a processor and a component; buffering a data value with a second buffer in communication with the processor and the component; controlling the first and second buffers as a matched pair such that the address held in the first buffer corresponds to the data value held in the second buffer; and controlling bi-directional data flow through the second buffer such that data flows between the processor and the component.

Bennett

The portion of Bennett cited by the Examiner does not appear to disclose the method recited in amended Claim 2. In particular, the Examiner cites column 6, lines 30–46 of Bennett for disclosing “controlling the first buffer and the second buffer as a matched pair such that the address held in the first buffer corresponds to the data value in the second buffer.” This section reads as follows:

The address decoder 66 determines if the address request on the system bus 18 requires access to the I/O bus 20. The output of the address decoder 42 is a MP-2-IO-ACCESS signal on a line 70, which is an active high signal. If the requested address requires access to the I/O bus 20, the MP-2-IO-ACCESS signal will be active. The MP- IO-ACCESS signal on the line 70 is delivered to the central arbiter 60.

The central arbiter 60 receives the decoded MP-2-IO-ACCESS signal on the line 70 and determines if the I/O bus 20 needs to respond to the requested address. The central arbiter 60 controls the granting of the I/O bus 18 to a requesting CPU module 12 and also controls the handshaking signals required to initiate and complete an I/O access.

Applicant is unable to find in this cited passage, or from cited Figure 7, disclosure of “controlling the first buffer and the second buffer as a matched pair” as recited in amended Claim 2. Applicant, therefore, respectfully requests that, if this rejection is to be maintained, the Examiner identify in Bennett disclosure of each element of amended Claim 2, including the controlling of the first and second buffers as a matched pair.

Because the portion of Bennett cited by the Examiner does not disclose each element of amended Claim 2, as discussed above, Applicant asserts that amended Claim 2 is not anticipated by Bennett.

Coke

Coke is directed to a bridge circuit for data transfer between busses operating at different rates. Coke does not appear to disclose “controlling the first and second buffers as a matched pair” and “controlling bi-directional data flow through the second buffer such that data flows between the processor and the component,” wherein the processor and the component operate at different speeds. Rather, Coke discloses a bridge circuit 17a having three individual unidirectional paths, which paths are used depending on which direction the address data is traveling.

For example, when the secondary (slower) bus 18 is reading data from the PCI (faster) bus 12, the address data flows through the line buffer 33a. However, in an opposite direction, when the PCI (faster) bus 12 is reading data from the secondary (slower) bus 18, the address data flows through a different path (32a) without a buffer (see column 5, line 47 through column 6, line 40). Coke also discloses in column 7, lines 5–14, that bidirectional data flow through a buffer would only be achieved if the buffer were used between two busses operating at the same speed.

Furthermore, Coke does not appear to require a first and a second buffer to operate as a matched pair.

Because Coke does not disclose each element of amended Claim 2, as discussed above, Applicant asserts that amended Claim 2 is not anticipated by Coke.

Lange

Lange is directed to a bridge circuit for use between two busses. Lange does not appear to disclose “controlling bi-directional data flow through the second buffer such that data flows between the processor and the component.” Rather, Figure 2 of Lange depicts a bridge 24 including a primary-secondary buffer 90 (for transferring data from the primary bus to the secondary bus) and a secondary-primary buffer 98 (for transferring data from the secondary bus to the primary bus). Furthermore, Figure 7 and column 5, line 65 through column 6, line 1, which were cited by the Examiner, further disclose that two informational transfer circuits (each of which contains a buffer) are used to achieve bi-directional data flow. Bi-directional data flow is not achieved with a single buffer.

Appl. No. : 10/630,635
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Because Lange does not disclose each element of amended Claim 2, as discussed above, Applicant asserts that amended Claim 2 is not anticipated by Lange.

Summary

Because none of the cited references discloses “controlling the first and second buffers as a matched pair” and “controlling bi-directional data flow through the second buffer such that data flows between the processor and the component,” wherein the processor and the component operate at different speeds, Applicant asserts that amended Claim 2 is not anticipated by any of the cited references. Applicant respectfully requests that the rejections under 35 U.S.C. § 102 be withdrawn.

Independent Claims 10, 17, 31 and 37

Amended independent Claims 10, 17, 31 and 37 are believed to be patentably distinguished over the cited prior art for reasons similar to those set forth with respect to the patentability of independent Claim 2 and for the different aspects recited therein.

Dependent Claims 3–9, 11–16, 18–21, 33–36 and 38–42

Claims 3–9 depend from amended independent Claim 2 and are believed to be patentable for the reasons set forth above with respect to amended Claim 2 and for the additional features recited therein.

Claims 11–16 depend from amended independent Claim 10 and are believed to be patentable for the reasons set forth above with respect to amended Claim 10 and for the additional features recited therein.

Claims 18–21 depend from amended independent Claim 17 and are believed to be patentable for the reasons set forth above with respect to amended Claim 17 and for the additional features recited therein.

Claims 33–36 depend from amended independent Claim 31 and are believed to be patentable for the reasons set forth above with respect to amended Claim 31 and for the additional features recited therein.

Claims 38–42 depend from amended independent Claim 37 and are believed to be patentable for the reasons set forth above with respect to amended Claim 37 and for the additional features recited therein.

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REQUEST FOR TELEPHONE INTERVIEW

Pursuant to M.P.E.P. § 713.01, in order to expedite prosecution of this application, Applicant's undersigned attorney of record hereby formally requests a telephone interview with the Examiner as soon as the Examiner has considered the effect of the arguments presented above. Applicant's attorney can be reached at (949) 721-2998 or at the general office number listed below.

CONCLUSION

In view of the foregoing, Claims 2-42 are believed to be patentably distinguished over the cited prior art. If further issues remain to be resolved, other than the filing of a Terminal Disclaimer, the Examiner is cordially invited to contact the undersigned such that any remaining issues may be promptly resolved.

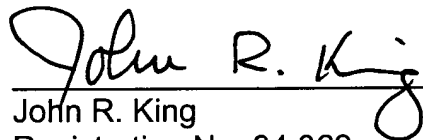
Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 6/15/05

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